

Instructions for use and installation of Anchor Point AT150

AT150

EN 795:2012 Typ A

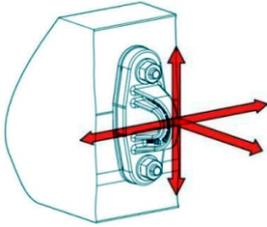


Figure 1. Permissible directions of anchor point loading

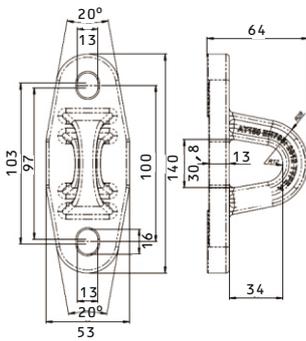


Figure 2. Overall dimensions AT150

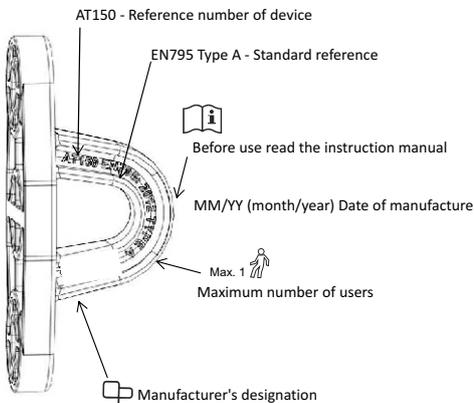


Figure 3. Method of device marking

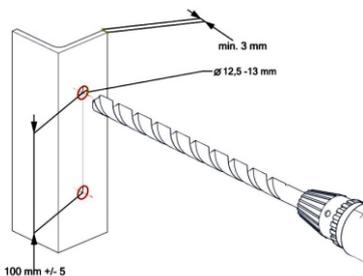


Figure 4. Drilling mounting holes in steel profiles

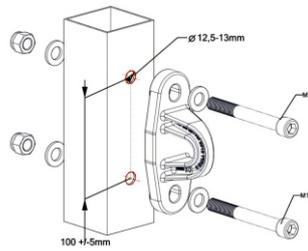


Figure 5. Installation of bolt fasteners with anchor point on steel structure

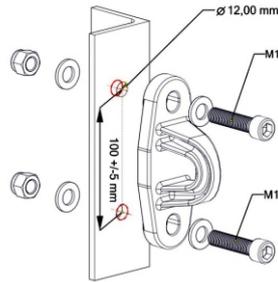


Figure 6. Method of screwing anchor point on steel structure using torque wrench

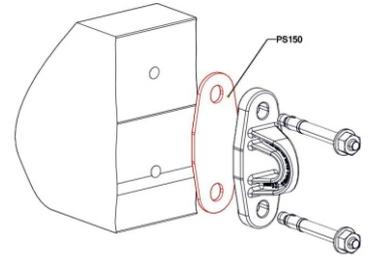


Figure 8. Placement of EPDM pad under anchor point AT150

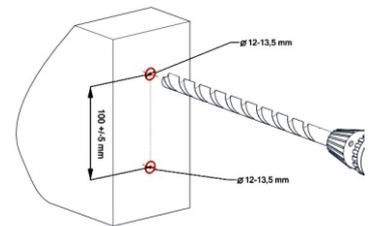


Figure 9. Drilling holes for anchor point AT150

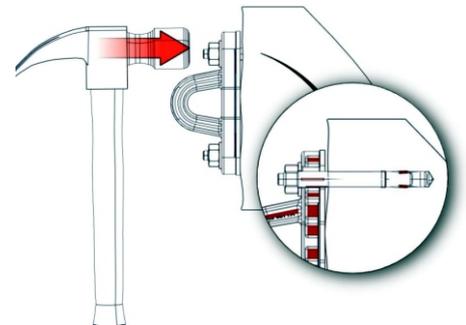


Figure 10. Embedding throughbolts in concrete.

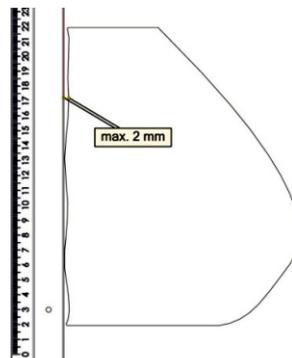


Figure 7. Estimation of maximum permissible unevenness of concrete structure

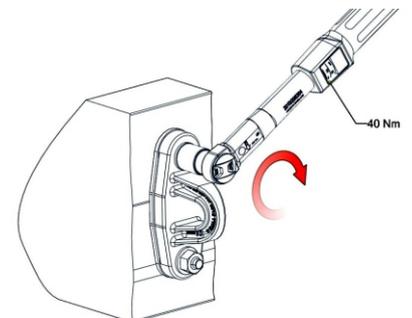


Figure 11. Tightening anchor point using torque wrench

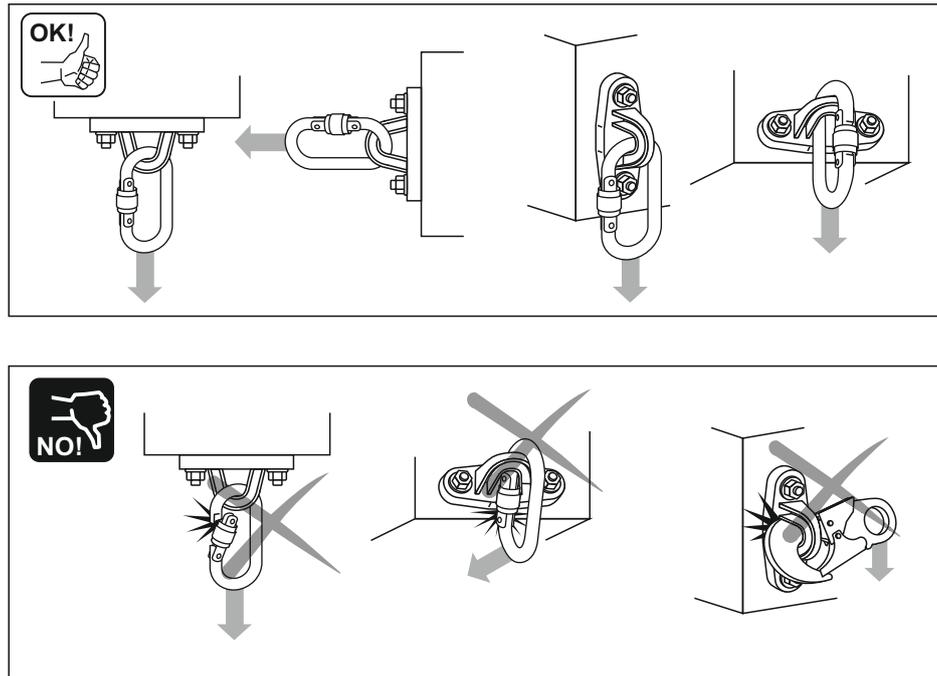


Figure 12. Connecting fall protection system

1. General information

Anchor point AT150 is an anchor device class A conforming to EN 795 and is designed for protection of one person. Anchor point AT150 may be used only as personal protective equipment which protects a user against a fall from a height, and cannot be used for lifting loads. The device is made of aluminium alloy using pressure casting technique. In accordance with EN 795:2012 type A strength of this point is min. 12 kN in any direction. The device is designed for protection of one person.

The maximum load that could be transmitted in service from the device to the static construction - 9 kN. This is the actual force which the anchor point transfers onto the structure to which it is attached when a fall occurs.

If the device is used as a part of a fall arrest system, the user must be equipped with an element limiting maximum dynamic forces applied on user while arresting a fall to max. 6 kN.

2. Overall dimensions of anchor point AT150

See fig. 2

3. Time of usage

Maximum time of usage of correctly operating devices is unlimited.

The device must be withdrawn from use immediately and destroyed if it has been used to arrest a fall or there are any doubts concerning its function.

NOTE: Maximum time of use of the device depends on intensity and environment of use. If the device is used in heavy conditions, being exposed to frequent contact with water, sharp edges, corrosive substances, extreme of temperatures, it may be necessary to withdraw the device after only one use.

4. Periodic inspections

At least once a year, after every 12 months of use, it is necessary to carry out periodic detailed inspection of the device.

Periodic inspection shall be carried out by service point authorized by the Manufacturer located at the following address:

PROTEKT Grzegorz Łaszkiwicz

ul. Starorudzka 9

93-403 Łódź

or a competent person with adequate skills, trained in performing inspections of such equipment.

A trained person is a person who, based on own specialized education and adequate experience, has sufficient knowledge within installed protective and rescue equipment, and is familiarized with applicable OHS regulations, guidelines and generally acknowledged technical rules to such extent that is able to assess safety of use and correct application of protections.

After 5 years of use, it is recommended that periodic inspections are carried out by the manufacturer of the equipment or an entity authorised by the manufacturer to carry out such inspections.

Before each use of the system check whether date of the next inspection is not expired. Do not use the device after this date. Before each use of the system visually check the system for its integrity and technical condition and whether steel cable is tensioned.

If any defect or lack of integrity is found, do not use the point. If any doubts arise as for the use of the equipment, please contact the manufacturer and never repair the equipment on your own!

A system which has been used to arrest a fall must be withdrawn from use immediately!

The system which has been used to arrest a fall may be admitted for use again after a detailed inspection is carried out by the manufacturer or an authorised service point.



When using the system, pay special attention to risks affecting the protective equipment operation or the user's safety, and in particular to kinks and rope movement on sharp edges, oscillatory falls, electricity, influence of extreme temperatures, equipment damage, negative influence of environmental factors, chemical substances and contamination.

Do not modify, repair components of the system or replace them with non-original spare parts.

It's recommended to mark the device with the date (month and year) of next inspection date using a special sticker – see it below.

Attention: Before the first use mark the date of the first inspection (date of first use +12 months).
Don't use the device after this date.



5. Device marking

See fig. 3

6. Installation of anchor point

- Before anchor point AT150 is installed, it must be stored in a place which is: clean, free from any vapours of corrosive substances, and in conditions preventing its mechanical damage. Also please take into account environmental conditions present in the place of installation which may cause corrosion of anchor point and fasteners.
- Installation of the anchor point must be carried out in accordance with rules of fixing on steel structures or concrete elements. When fixing on metal surfaces use bolts M12 of any length and tension grade of no less than A2/70. When fixing on concrete surfaces use throughbolts M12 or chemical anchors M12.
- Installation with use of anchors should be carried out in accordance with guidelines specified by the manufacturer of these elements.
- Follow general rules for use of personal fall protection equipment in accordance with EN 795:2012.
- For installation on a concrete surface using throughbolts or mechanical anchors the required strength of these surfaces should be greater than 20MPa,
- Anchor point AT 150 should be installed above the workplace.
- Example installations are shown in figures

7. Installation on steel and concrete surfaces

Anchor point may be installed on steel structure the thickness of which is more than 3mm. Drill two holes of 12.5-13mm in diameter spaced 100mm with possible error margin of up to 5mm. Figure no. 4. Strength of steel structure to which anchor point is to be installed should be calculated and be no less than 12kN.

Fix anchor point AT150 in the drilled holes using M12 bolts of adequate length and strength class, accordingly:

- for galvanized bolts – strength class no lower than 8.8
- for stainless steel (A2) and acid resistant steel (A4) bolts – strength class no lower than 70. (Figure 5)

Bolts should be tightened using a torque wrench by applying a torque of no more than 40Nm. Increasing the torque may damage aluminium structure of anchor point AT150 or break it in case of unevenness of contact surface (Figure 6).

Anchor point AT150 is suitable also for installation in concrete structures using mechanical anchors (throughbolts) or chemical anchors of 12mm in diameter. For installation using mechanical and chemical anchors, keep closely to recommendations given by manufacturers of these anchors (drilling depth, drill bit diameter, anchor torque).

Concrete structure should be dense and have no surface cracks or chips.

Mechanical strength of concrete should be no higher than 20MPa.

Before installation on concrete structure assess the surface for unevenness. If any unevenness greater than 2mm is found (Figure 7) on anchor point installation line, use special EPDM rubber pad (PS150) to reduce stresses in aluminium structure of the anchor point (Figure 8). In the case of a minor unevenness the rubber pad is not necessary.

Drill two holes of 12mm in diameter and depth of approx. 120mm, spaced 100mm +/- 5mm (Figure 9).

Fasteners, as anchors, should be placed in such holes using a hammer (in accordance with instructions for installation of anchors (Figure 10).

Anchors should be tightened using a torque wrench with a torque value specified by the manufacturer (usually 40Nm) (Figure 11).

8. Connecting fall protection system to the AT 150

Fall protection system should be attached the AT150 with EN362 connectors only. The system should be connected to the AT150 in such a way the function of any component of the system is not affected by, or interferes with the function of any other. See figure 12.

9. Essential principles for use of personal fall protection equipment

- Anchor point AT150 must be used in accordance with instruction manuals for personal fall protection equipment and standards:
 - EN 361 - Full body harness
 - EN352-3; EN355; EN360 - Personal fall protection equipment
 - EN362 - Connectors
 - EN 795 - Anchor points



- Personal protective equipment should be used only by personnel trained in this respect.
- Personal protective equipment must not be used by a person with medical condition that could affect the safety of the equipment user in normal and emergency use.
- Draw a rescue plan to be implemented whenever necessary.
- It is forbidden to make any alterations or additions to the equipment without the manufacturer's prior written consent.
- Any repair shall only be carried out by the equipment manufacturer or his certified representative.
- Personal protective equipment shall not be used for any purpose other than intended.
- Personal protective equipment provides individual protection and shall be used by one person only.
- Before each use make sure that all parts of the fall arresting system cooperate correctly. Periodically examine connections and fitting of components of the equipment to prevent any accidental loosening or disconnection.
- It is forbidden to use a combination of equipment where function of any one item is affected by, or interferes with the function of any other.
- Before each use of personal protective equipment, a pre-use check should be carried out to ensure that it is in a serviceable condition and operates correctly.
- In particular, inspect all accessible elements of the equipment for any damages, excessive wear, corrosion, abrasion, cutting or improper function. On individual devices pay particular attention to:
 - in full body harness and work positioning devices: buckles, regulating elements, attachment points (buckles), webbing, seams, belt loops;
 - in energy absorbers: attachment loops, webbing, seams, housing, connectors;
 - in lanyards and textile guides: rope, loops, thimbles, connectors, regulating parts, splices;
 - in lanyards and steel guides: rope, wires, clamps, loops, thimbles, connectors, regulating parts;
 - in retractable type fall arresters: lanyard or webbing, retractor and locking mechanism for proper operation, housing, energy absorber, connectors;
 - in guided type fall arresters: body, proper guiding, locking mechanism for proper operation, rollers, bolts and rivets, connectors, energy absorber;
 - in connectors (snap hooks): load-bearing body, rivets, main pawl, locking mechanism functionality.
- at least once a year, after every 12 months of use, personal protective equipment must be withdrawn from use to carry out periodic detailed inspection. Periodic inspection may be carried out by a properly trained and skilled person. Periodic inspections can be carried out also by the equipment manufacturer or his authorized representative, or an authorized company. Inspect in detail all accessible elements of the equipment paying attention to any damages, excessive wear, corrosion, abrasion, cutting or incorrect function (see the above item.) In some cases, if the protective equipment has a complex design (e.g. fall arresters), periodic inspections may be carried out by the equipment manufacturer, or his authorized representative only. After the periodic inspection, date of the next inspection should be arranged.
- Regular periodic inspections are essential in respect of the equipment condition and safety of users which is dependant on the equipment functionality and durability.
- During periodic inspection it is necessary to check the legibility of all the equipment markings (identity label of the device.)
- All information on protective equipment (name, serial no., purchase date and date of first use, name of user, information on repairs and inspections and withdrawal from use) must be provided in the identity card of the device. It is the responsibility of the user organisation to provide the identity card and to fill in the required details. The identity card should be filled in by a person responsible for protective equipment. It is forbidden to use personal protection equipment if the identity card is not filled in.
- If the product is re-sold outside the original country of destination the reseller must provide instructions for use, for maintenance, for periodic inspection and for repair in language of the country where the product is to be used.
- Personal protection equipment must be withdrawn from use immediately if any doubts arise in regard of its condition, or proper operation. The device must not be used until the equipment manufacturer carries out the detailed inspection and gives his written consent to use the equipment again.
- Personal protection equipment must be withdrawn from use immediately and destroyed if it has been used to arrest a fall.
- Full body harness is the only admissible device to be used to support the user body in personal fall protection equipment.
- In full body harness use only attaching points (buckles, loops) marked with capital letter "A" to attach a fall protection system.
- the anchor device or anchor point for the fall arrest system should always be positioned, and the work carried out in such a way, as to minimise both the potential for falls and potential fall distance. The anchor device/point should be placed above the position of the user. The shape and construction of the anchor device/point shall not allowed to self-acting disconnection of the equipment.
- it is obligatory to verify the free space required beneath the user at the workplace before each occasion of use the fall arrest system, so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path. The required value of the free space should be taken from instruction manual of used equipment.
- there are many hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed during equipment utilization, especially: - trailing or looping of lanyards or lifelines over sharp edges, - any defects like cutting, abrasion, corrosion, - climatic exposure, - pendulum falls, - extremes of temperature, - chemical reagents, - electrical conductivity.
- personal protective equipment must be transported in the package (e.g.: bag made of moisture-proof textile or foil bag or cases made of steel or plastic) to protect it against damage or moisture.
- the equipment can be cleaned without causing adverse effect on the materials in the manufacture of the equipment. For textile products use mild detergents for delicate fabrics, wash by hand or in a machine and rinse in water. For energy absorbers use only a



damp cloth to wipe away dirt. It's forbidden to immerse energy absorbers into the water. Plastic parts can be cleaned only with water. When the equipment becomes wet, either from being in use or when due cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat. In metallic products some mechanic parts (spring, pin, hinge, etc.) can be regularly slightly lubricated to ensure better operation.

- personal protective equipment should be stored loosely packed, in a well-ventilated place, protected from direct light, ultraviolet degradation, damp environment, sharp edges, extreme temperatures and corrosive or aggressive substances.

10. Warranty

The manufacturer grants a warranty for 12 months from the date of purchase of the device. If a defect is found in any part, the warranty and guarantee period for this part is extended by the time of repairs and effective removal of the defect found.

The warranty covers:

- Defects in material,
- Structural defects,
- Anti-corrosion coating defects

In order to keep the warranty, it is necessary to follow procedures of periodic inspections specified in item 4 of the Instruction manual.

11. Identity Card

IDENTITY CARD FOR ANCHOR POINT AT150 (conforming with EN365)

Reference number of device	AT150	Serial number:		
Date of first use (installation)	Date of manufacture:	Date of purchase:
Location of installation				
User name:				

Inspection and Repair

No.	Date of inspection	Type of inspection / repair	Remarks	Date of next inspection	Name and signature of technician
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					